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August 17, 1959

RAILWAY AGE *weekly*

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Monorail gets its first big test in U.S.—p. 21

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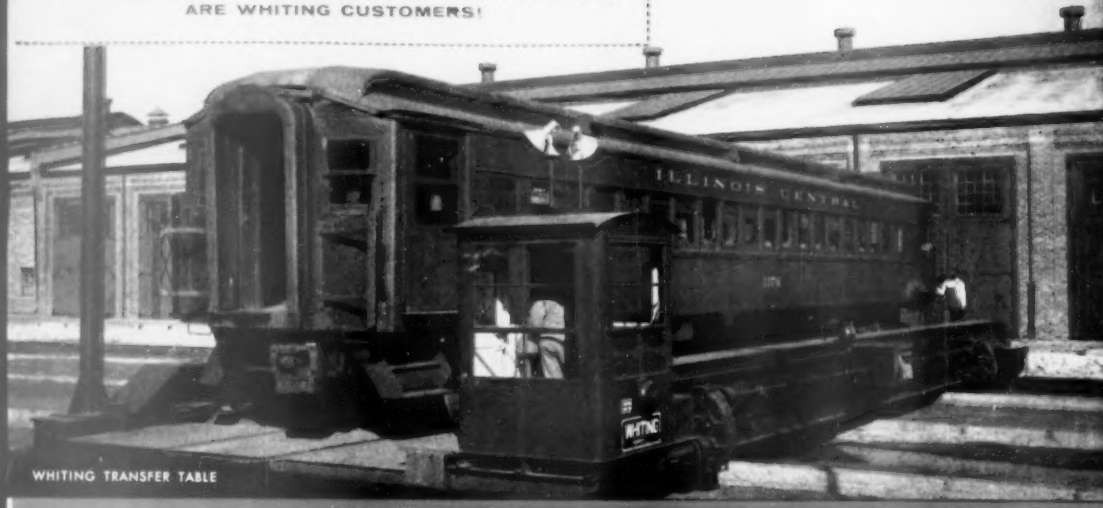
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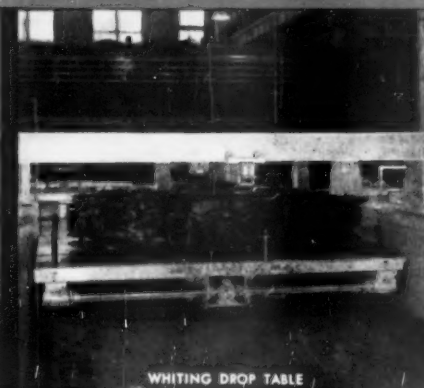
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WHITING



Week at a Glance

Departments

Freight Car Loadings	27
Letters from Readers	28
New Equipment	27
People in the News	29
Railroading After Hours	21
Railway Market	27
Supply Trade	30
The Action Round	34
Watching Washington	10
You Ought to Know	32

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TOFC scores gains in Southp. 9

The barriers to piggyback below the Mason-Dixon Line are beginning to come down. L&N, through membership in the Trailer Train Co., will expand its TOFC coverage of the Southeast considerably. And the Seaboard will open brand new piggyback territory when it inaugurates through TOFC service between New York and Miami Nov. 3.

Cover Story—S. F. Bay Area rail plan readied for votep.14

To avoid strangulation by the "concrete octopus," voters in San Francisco and neighboring counties may be asked, next year, to approve a bond issue of as much as \$700 million for initial stages of a proposed \$1.5-billion rapid transit system.

Cover Story—Record girder goes in RR bridgep.18

Largest single girder ever fabricated by American Bridge will help to carry 10 C&NW tracks across the top of a three-way grade separation.

Cover Story—Disneyland unveils monorailp.21

The first monorail trains to go into regular daily service in the U.S. are now operating in California's Disneyland. The mile-long, near-full-scale system, built on the Alweg principle, is a lot more, however, than a mere amusement park penny-catcher; it's expected also to provide a valid test of Alweg's possibilities as a mass-transport reliever of overcrowded cities.

Timken answers bearing queriesp.22

Dr. O. J. Horger, chief engineer of Timken's Railway Division, replies to questions concerning roller bearings, raised at the latest annual meeting of the AAR's Mechanical Division.

Frisco plans guaranteed ratep.25

A guaranteed rate—third of its type in the U.S. and first to come entirely under ICC jurisdiction—has been docketed by the Frisco for consideration by Southern Freight Association on Sept. 8. It applies to naval stores and related articles from Pensacola to Chicago; is designed to recover traffic now going by truck.

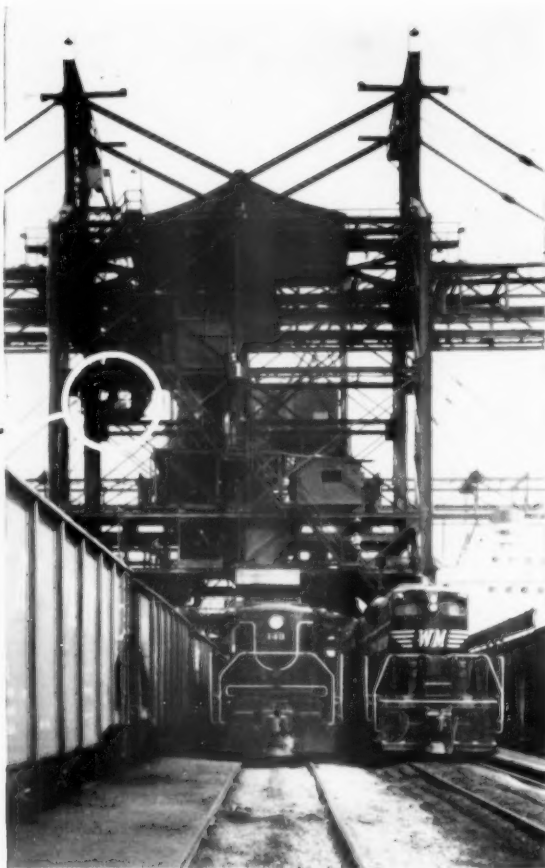
QNS&L using three-man crewsp.28

A new contract with the BRT provides for the gradual elimination of the flagman from the road's ore trains.

Automation from crane to customer's office at the Western Maryland



After unloading ore from ship to railroad car, weighman in crane transmits data to yard office for automatic preparation of waybill and other documents.



Teletype Printer in a crane automates ore waybilling

As ore is transferred from ships to railroad cars at Western Maryland's Port Covington docks, a weighman high up in the control cabin of the ore-unloading crane records the lot number, tonnage, and car data on a Teletype Printer. Instantly, this information is reproduced in the yard office in punched tape—starting the automatic writing of waybills by a combination of Teletype page and tape equipment.

The only manual intervention following the transmission of the variable data from the crane is the association of fixed-data tapes by the yard clerk. The entire procedure takes just minutes—so that when the last car is coupled to the train, all waybills, arrival notices, and consignees' copies are ready. Accuracy is improved, too—since mechanization eliminates recopying errors.

As a by-product of waybill preparation, a master tape is punched automatically, which is used to produce a complete shipping statement. The system also enables the Western Maryland to give customers an extra service to speed their own accounting procedures: advance direct wire transmission of

shipping statement data by Teletype equipment or a duplicate of the master tape by mail.

This installation is just one example of how railroads today are using Teletype equipment in new, imaginative ways to trim costs, improve service. This unusual application is made practical by the ruggedness built into Teletype equipment, so that it functions dependably and economically even in the dust-generating environment of ore-loading operations. If you would like information on the new Teletype Model 28 Line, please write to: Teletype Corporation, Dept. 43H, 4100 Fullerton Avenue, Chicago 39, Illinois.

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Week at a Glance CONT.

Current Statistics

Operating revenue	
6 mos., 1959	\$5,025,907,261
6 mos., 1958	4,535,151,475
Operating expenses	
6 mos., 1959	3,904,047,540
6 mos., 1958	3,725,796,480
Taxes	
6 mos., 1959	546,801,508
6 mos., 1958	427,791,374
Net railway operating income	
6 mos., 1959	414,074,292
6 mos., 1958	233,910,848
Net income, estimated	
6 mos., 1959	308,000,000
6 mos., 1958	127,000,000
Average price railroad stocks	
Aug. 11, 1959	109.13
Aug. 12, 1958	87.10
Carloadings revenue freight	
31 wks., '59	18,947,227
31 wks., '58	17,069,014
Freight Cars on order	
July 1, 1959	40,973
July 1, 1958	27,757
Freight cars delivered	
6 mos., 1959	18,272
6 mos., 1958	29,545

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The Action Page—ICC, an Indian giverp.34

Only Great Britain's 19th century satirists, Gilbert and Sullivan, could properly characterize the ICC's action in offering relief from its new 500-mile air brake inspection rule—and then denying relief on a run of 502 miles. At best, the contradictory rulings are another missed opportunity for constructive action.

Short and Significant

'Service interruption' insurance . . .

for the railroads will probably go into effect Sept. 1. Carriers representing more than 65% of gross industry revenues, it's reported, have filed application for coverage—many of them acting well in advance of the Aug. 15 filing deadline. Next move: notification to individual railroads of their initial premium and daily indemnity. Carriers can expect to get the word from the program's advisory committee (heads of the ERPC, AWR and ASR) this week.

Government guaranty of a \$6,000,000 loan . . .

is being sought by the Lehigh Valley. The road told the ICC it plans to use the money in connection with the refinancing of balances due on short term equipment obligations incurred after Jan. 1, 1957; to replenish working capital; and to help pay for capital improvements.

To provide faster rate service . . .

to shippers, and more thorough rate analysis, the New York Central has established a centralized rate bureau at New York, which will handle work formerly done in six scattered rate offices. Related commodities have been assigned to groups, each with its own chief, analysts and clerks. There are special groups for coal, coke and iron ore; transit; and Flexi-Van.

Nighttime track maintenance . . .

is being tried by Chicago & North Western in the Chicago area. Reason: suburban traffic during the day doesn't give mechanized gangs long enough periods of time in which to operate efficiently. Equipment has been fitted with floodlights for night operation.

American Express credit cards . . .

will be honored by Great Northern and Northern Pacific beginning Sept. 1. Unlike New York Central, which joined Amexco and served notice of withdrawal from Rail Travel Credit Agency, GN and NP will still honor RTC cards.

DIESEL DRIVE-IN...

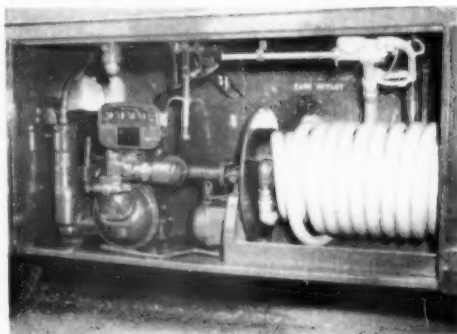
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TOFC Scores Gains in South

► **The Story at a Glance:** The fast-growing industrial and agricultural centers of the South comprise one of the last major markets still to be tapped in a big way by equally fast-growing piggyback services. Now, there are signs that the barriers to TOFC service in the South are coming down.

The Louisville & Nashville has become the 14th railroad member of Trailer Train Co. And the Seaboard Air Line, whose directors have applied for membership in Trailer Train, has announced that it will begin through piggyback service between New York and Miami and intermediate points, starting Nov. 1. Meantime, piggyback carloadings across the nation are up 60% over last year's figures.

The Louisville & Nashville, in becoming a member of the Trailer Train Co., has doubled the piggyback service provided by Trailer Train members in the deep South.

In announcing L&N's membership, J.P. Newell, Trailer Train chairman of the board, also announced that the piggyback car leasing organization has placed orders for an additional 500 85-foot, roller-bearing flat cars similar to 800 cars added to the TTX fleet earlier this year (RA, April 20, p. 16) and 700 more ordered in April and June. Cost of the latest order of cars was placed at more than \$7,500,000.

"The L&N brings important new terminals in the southeastern United States into the vast network of co-ordinated trailer-on-flat-car services performed by Trailer Train members," Mr. Newell commented. "Trailer Train is the largest organization in its field," he pointed out, "its members representing about 50% of the nation's total piggyback traffic. Lines of the railroad members now serve terminals in 34 states and the District of Columbia."

The L&N, which handled 740 piggyback carloads in 1957 and 844 in 1958, expects its membership in Trailer Train to double last year's figures in 1959 and triple them in 1960, a spokesman said.

L&N President W.H. Kendall said that membership in Trailer Train will facilitate the contemplated expansion of his road's piggyback service into

several new areas, as well as help it meet the demands of growing traffic volume in the extensive territory it already serves.

"The Louisville & Nashville Railroad launched its first piggyback operation in 1955," Mr. Kendall said, "and began interchange service a year ago. We now serve terminals in St. Louis, Evansville, Ind., Louisville, Cincinnati-Memphis, Nashville, Atlanta, Birmingham and New Orleans. We are now planning inauguration of piggyback service to Oak Ridge, Tenn., Mobile, Ala., and Pensacola, Fla., as well as expanding interchange arrangements with connecting roads."

The Seaboard Air Line, through its vice president in charge of freight traffic, John P. Derham, Jr., announced last week that it would begin through piggyback service between Baltimore, Philadelphia, New York and Miami, Tampa, Wildwood (Orlando), Jacksonville, Atlanta, Birmingham and Charlotte beginning November 1. Other points are likely to be added in the near future, Mr. Derham added.

"Establishment of this service," Mr. Derham said, "will mark the first time that shippers in the Seaboard's territory will have had the benefit of expedited through piggyback transportation between the Southeast and principal Eastern cities."

For equipment for its through service, the Seaboard has revealed that it has applied for membership in Trailer Train, although the road will not become a member until its application has been approved by Trailer Train's board of directors, which next meets Sept. 19. As a member road, SAL will share in Trailer Train's car pool, which will total 3,114 cars when the latest orders are delivered. It will also automatically have TTX equipment interchange arrangements with all other Trailer Train members, two of which—the Pennsylvania and the B&O—have piggyback terminals in the Baltimore, Philadelphia and New York markets the SAL is planning to serve.

Clearance problems on the north-south route have been a major barrier in the past to the spread of through

Revenues Off \$180 Million in Steel Strike

As the steel strike went into its fifth week, railroads and their employees were counting their losses in the millions.

The Association of American Railroads estimates that the industry is losing approximately 150,000 carloads of steel-related revenue freight a week. This means a weekly revenue loss of about \$40,000,000.

Total traffic loss up to Aug. 15 is estimated at about 675,000 cars. Total revenue loss is close to \$180,000,000.

The Railroad Retirement Board estimates that, as of Aug. 7, some 38,000 railroad employees were out of work as a result of the strike. This means a loss in payroll of about \$4,000,000 a week.

More layoffs are expected if the strike continues. Chesapeake & Ohio, for example, has announced it will furlough an additional 980 employees by Aug. 21—530 in the mechanical department, 450 in maintenance-of-way.

The strike also is slowing down freight car repair and building programs. Baltimore & Ohio is delaying construction of 500 new box cars at its DuBois, Pa., shops until four to six weeks after the strike ends. And the Nickel Plate announced last week that delivery of a new 500-car order from General American will depend on the availability of steel.

piggyback service to the South. To provide the through service, engineers of the through route are reported to have begun modifications of tunnels and structures to provide necessary clearances before service begins this fall.

Other southeastern roads are already in piggyback. The Florida East Coast began piggyback service in June 1957 and handled over 3,000 cars in 1958. The Atlantic Coast Line began service between Alexandria, Va. (via the RF&P) and Jacksonville, Fla. on June 3 (RA, June 1, p. 7) and like the Seaboard will offer through service to the north when tunnel clearance problems are solved. At the same time, the Richmond, Fredericksburg & Potomac, which is now acting as a bridge carrier for piggyback, will begin its own service to points beyond Baltimore.

Piggyback activity in the Southeast is only part of the story of piggyback in 1959. Piggyback carloadings for

1959 up to Aug. 1 totaled 238,985, compared with 149,040 for the comparable 1958 period. This was an increase of over 60%.

Some of the year's highlights:

- The Bangor & Aroostook, in what was called a major breakthrough, began handling gasoline tank trailers by piggyback on July 1 (RA, July 13, p. 42). The BAR movement was handled under a Plan III tariff.

- Auto TOFC, which has been tested by at least three roads—Frisco, Western Pacific and Southern Pacific—has begun to generate good traffic (RA, May 4, p. 9; June 22, p. 60; June 29, p. 46). According to the traffic director of one of the Big Three auto manufacturers, these moves "are only a beginning." Other roads are interested.

- In Western Canada, the Pacific Great Eastern has a growing piggyback business, hauling trailers from North Vancouver over British Columbia's

rugged mountains to a junction with the Alaska Highway.

- A major missile manufacturer has successfully tested the rail movement, by New York Central Flexi-Van cars, of a missile from California to Florida. The Navy is reported to be highly pleased with the test results.

- Fishyback-piggyback using a new type aluminum container was introduced for shipment of 2,100 cases of canned pineapple from Hawaii to Chicago via Matson Navigation Co. and the Santa Fe (RA, June 22, p. 23). There are also reports that a whiskey movement between the U.S. and Japan will be made soon using Flexi-Vans.

- In Washington, a full-scale Senate investigation of all piggyback practices involving railroads, forwarders, truck companies and private shippers was announced—and then called off—by Senator George Smathers of Florida (RA, Aug. 10, p. 10).

Watching Washington *with Walter Taft*

Mr. Taft is on vacation. During his absence, this column is being written by other members of the staff.

- **THE AAR HAS ISSUED** a memorandum warning that two bills pending in Congress (S.1331, sponsored by Senator Case of New Jersey, and S.1450, sponsored by Senator Williams of New Jersey), although widely divergent in approach and scope, would "make relief from the staggering annual losses caused by unprofitable and unneeded passenger services more difficult, if not impossible, to obtain."

S.1331 WOULD REPEAL Section 13a of the 1958 Transportation Act entirely and rewrite it in substantially different form elsewhere in the Interstate Commerce Act. It would have these results, according to the AAR: "Railroads would be required to go to the ICC in train-off cases where state commissions have no jurisdiction; there would be no pressure on the ICC to expedite hearings; the burden of proof would be shifted from those claiming need for a particular service to the railroad proposing that it be dropped; the ICC would be given power to impose so-called labor-protective provisions in its approval of train-offs; the ICC would be required to consider revenues from all freight and passenger service conducted by a petitioning railroad in the state or states involved."

S.1450 WOULD AMEND a part of Section 13a, the AAR says, "to the extent that it would require the ICC to investigate and hold hearings on every train-off case referred to it, and would make mandatory a continuation of train operations during such investigations and hearings."

THE AAR POINTS OUT that "notices and applications for train discontinuances filed by the railroads pursuant to the provisions of Section 13a have involved only about 2% of the nation's approximately 5,000 passenger trains, the majority of these branch line operations and about 50% of them trains for which the railroads had previously sought state authority to discontinue."

- **THE ICC HAS RECEIVED** from Examiner Edward H. McMahan a proposed report recommending clearance of some truck-competitive rail rates—because the railroads "cannot be expected to sit idly by" and lose traffic "when they have the ability to reduce rates to a point that will regain and keep the traffic" on a compensatory basis.

THE PROPOSED REPORT was made in I&S No. 7114 and a related complaint case, No. 32652. The railroad rates in issue are published (some for piggyback services) to apply on malt liquors from Kansas City, Mo., St. Joseph, St. Louis, East St. Louis, Ill., Belleville and Omaha, Neb., to Tulsa, Okla., Muskogee and Oklahoma City. The protestant-complainant is a contract trucker, Contract Freighters, Inc., but the real competition encountered by the railroads is private trucking.

THE EXAMINER does not find the assailed railroad rates to be on the full-cost basis. He refers to them as being "well above out-of-pocket costs." He also says: "The railroads have no obligation to hold rates on a basis that will assure the trucker the ability to keep the traffic it has been receiving at the expense of losing their own traffic. The railroads are the low-cost transportation, and they have the right to take advantage of the same."



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Why take a chance on a hot box that can cause you so many headaches when you can whip the problem with Allison KAR-GO Cartridge Bearings?

Expensive? Far from it—in fact, this is the lowest-cost complete solution to the hot-box problem.

Dependable? You bet! The KAR-GO Bearing is proved by millions of in-service railway miles and three years of rugged field testing.

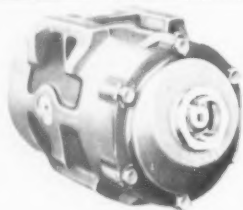
Economical? Here's proof: An Allison KAR-GO Bearing will *pay for itself* in two years by reducing

routine maintenance and service-failure costs.

No "gadgetized" journal brass bearing can begin to give you the rugged low-cost features of the full-round sleeve KAR-GO Cartridge Bearing—or the advantages you get with this sealed-in, low-maintenance unit. In fact, once you get your first set of KAR-GO Bearings, you'll find more of these bearings can be added to your new-car fleet through savings in hot-box elimination.

On your next conversion or freight-car build, it will pay you to go for KAR-GO—you'll get a bearing that ends hot boxes and cuts terminal inspection and oiling time, *a bearing you can really rely on.*

KAR-GO, ALLISON DIVISION OF GENERAL MOTORS
Indianapolis 6, Indiana

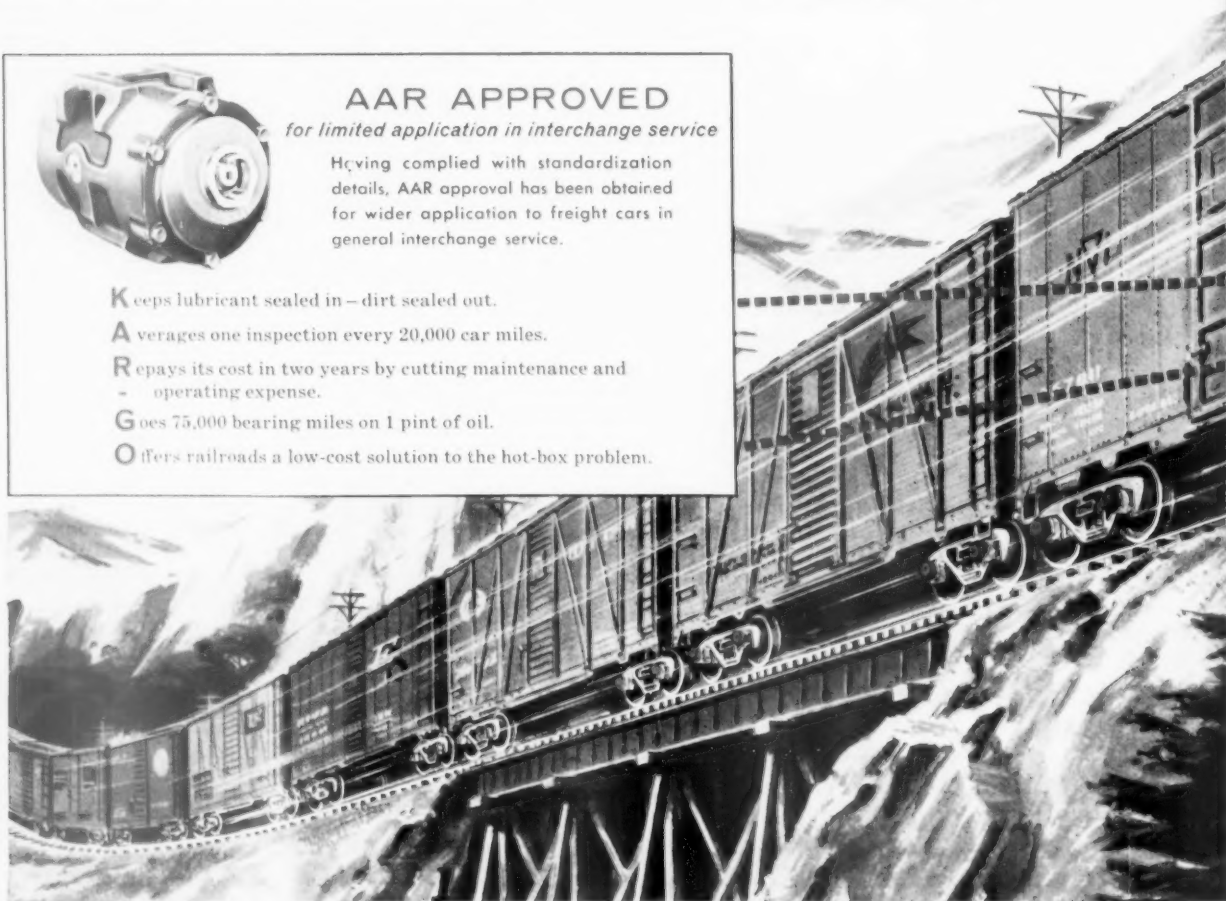


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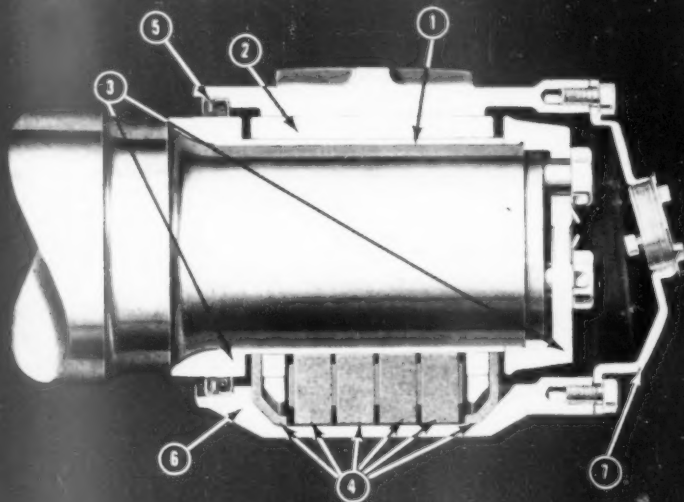
for limited application in interchange service

Having complied with standardization details, AAR approval has been obtained for wider application to freight cars in general interchange service.

- K**eeps lubricant sealed in—dirt sealed out.
- A**verages one inspection every 20,000 car miles.
- R**epays its cost in two years by cutting maintenance and operating expense.
- G**oes 75,000 bearing miles on 1 pint of oil.
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THE INSIDE STORY



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Smooth, hardened surface for maximum bearing life — eliminates axle wear.

2. ALUMINUM ALLOY BEARING

Economical, precision-fitted, full round for maximum heat dissipation and prevention of axle roll-out.

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Absorb lateral thrusts on hardened faces. Ring provides highly finished surface for oil seal.

4. FELT WICK LUBRICATOR

Insures adequate oil delivery to bearing—spring loaded to make constant contact with journal sleeve.

5. OIL SEAL

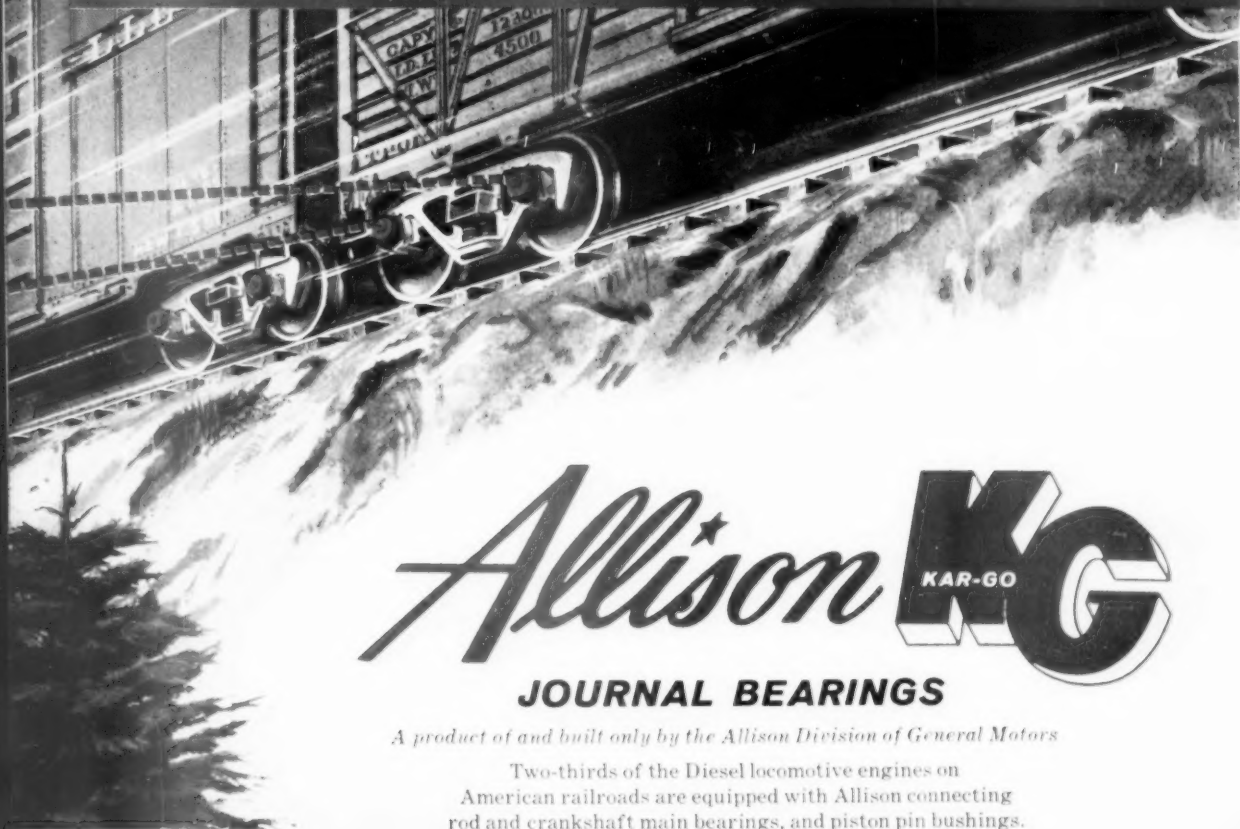
Double lip, automotive type; keeps oil in and dirt and water out.

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Rugged pearlitic malleable iron; completely encloses entire assembly; eliminates need for separate adapter.

7. COVER ASSEMBLY

Provides sealed closure, oil filler plug and pressure-relief valve.



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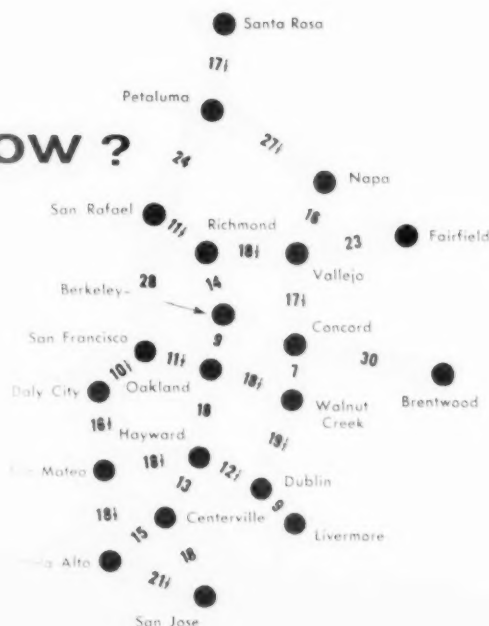
Two-thirds of the Diesel locomotive engines on American railroads are equipped with Allison connecting rod and crankshaft main bearings, and piston pin bushings.

S. F. Bay Area



TOMORROW ?

If present Transit District plans win approval, Bay Area commuters will find the time it takes them to get to and from work will shrink as indicated on the accompanying schematic drawings. Figures for today represent fastest available transportation; those for tomorrow are by rail.



A tax-financed, tax-supported rail commuter network may be in the offing for the San Francisco Bay Area. In all likelihood voters in San Francisco and four surrounding counties (Alameda, Contra Costa, Marin and San Mateo) will be asked in 1960 to approve a bond issue that may run as high as \$700 million for this purpose.

And, according to extensive studies, this would be but the beginning of a double-track rail network that would eventually serve the population of nine counties by means of surface, elevated and subway lines, and which would cost over \$1.5 billion.

Reason for the project, of course, is that growing automania threatens to envelop the Bay Area with the same smog-encased semi-paralysis that already chokes Los Angeles. The Bay Area expects to double its present 2.8-million population by 1975-80 and doesn't want to find itself in the same situation as the metropolis to the south.

That is why the California state legislature first created (in 1951) a nine-county committee to study the transit problems of the Bay Area and gave it money for this purpose (\$750,000); then in 1957 created the Bay Area Rapid Transit District (consisting of a 16-member board from the five counties named above) to implement these studies; and, in its most recent session, authorized a bill conditionally committing \$115 million in state funds to construction of a trans-Bay underwater rapid transit tube.

This latest enactment is believed to be the first time any state has pledged funds toward development of such public transportation facilities.

Where will the initial \$115 million come from? *It will be financed by revenue bonds issued by the California Toll Bridge Authority!* Officials state that the present reserves of the Bay Bridge, plus . . . surplus revenues of \$10 million each year, will provide more than enough in revenue bonds to build the trans-Bay tube."

Thus, this projected rail rapid transit system would receive its primary financing from the automobile traffic it is designed to alleviate. Under current plans, \$84 million of the \$115 million needed to build the tube and its approaches would come from bridge tolls; the remaining \$31 million from fares generated by the rail service itself.

Civic leaders, a spokesman says, "are in complete accord that a new facility exclusively for rapid transit should be constructed out of bridge revenue." (Elimination of previous street car

Rail Plan Readied for Vote

transportation across the Bay Bridge has already made space for additional lanes of automobile traffic.)

But none of this state money can be spent until the Bay Area Rapid Transit District has won approval of its overall plans for the entire regional system, first from the boards of supervisors of the five counties, and then from two-thirds of the Bay Area's voters.

So these plans can be submitted to the supervisors by May of next year and to the people in the November 1960 elections, final detailed engineering studies are now under way. They are being conducted by Tudor Engineering Co., working in Alameda, Contra Costa and Marin counties; Parsons, Brinckerhoff, Hall & Macdonald and the Bechtel Corp., working in San Francisco itself; and Wilsey & Ham, working in San Mateo county. The three firms in San Francisco, Alameda, Contra Costa and Marin counties are working under a joint venture agreement and a \$600,000 contract with the BARTD. They have agreed to produce by May 1960 detailed plans for a modern rail rapid transit system serving the five counties. Wilsey & Ham is under a \$45,000 contract with these major engineering consultants.

The firms are working under the supervision of the District's chief engineer, Kenneth M. Hoover. Every phase of the engineering planning is being carried out in close coordination with city and county officials.

Aerial mapping of routes has been undertaken. Population, traffic and other studies compiled in 1956 are being updated.

The following general plan, outlined to the state legislature in 1956, remains substantially unchanged:

"A double-track system, grade-separated in its entirety, for electric-powered conventional-type trains capable of achieving travel speeds of 45 mph, including station stops . . . Service would be as frequent as every 90 seconds during rush hours on the densest routes and no less often than every 15 minutes during the daytime of weekdays . . .

"The plan provides for construction of the system by stages but not in piecemeal fashion. That portion recommended for construction as the first stage is considered as an economic unit. Hub of the system is the trans-Bay tie joining San Francisco and Oakland. From this unified regional core first-stage routes . . . extend north into Marin county to St. Vincent's beyond San Rafael, south down the peninsula

to Arastradero road below Palo Alto, along the East Bay shore north to Richmond and south to Decoto, and east through Walnut Creek to Concord. Of the 123 miles making up the first stage approximately 21 miles in San Francisco and Oakland would be underground, 31 miles of the route is suitable for surface operation and the remainder would be carried on elevated structures of acceptable architecture.

"Construction cost of this first stage is estimated at \$716,500,000."

"The projected second stage of construction would take in a loop through San Jose connecting with the first-stage system at Palo Alto and at Decoto. It would also extend the Marin line north to Novato . . . The second-stage extensions would be required about 1970 in keeping with the projected development of the region. This stage would add 42 miles to the system.

"Construction costs (of this second stage) are estimated at \$112,500,000."

"Subsequent additions to the system to follow within 20 years of the second stage would extend the lines to Santa Rosa, Fairfield, Brentwood and Livermore at the extremities . . .

"Cost of these additional extensions is estimated at \$716,000,000."

This would bring the total cost of the entire regional rapid transit plan, as recommended, to \$1,545,000,000. Use of available bridge and terminal connections across the Bay instead of the proposed tunnel would save an estimated \$130,500,000, but is not recommended for a variety of reasons, including additional travel time and the inconvenience of present terminals.

To achieve this monumental transportation job, the commission has recommended a supported train system, perhaps running on rubber tires. It has recommended also a multi-million-dollar test for such a system.

Some of the problems in determining the preferred type of system were these:

- "The public would prefer to ride above ground to subway.
- "In the same breath, he would prefer as a spectator not to see the transit roadway or have fixed structure obstruct his view.
- "He likes speed but also likes quiet and to feel safe.
- "He wants to be able to find a seat—preferably alone or at least not sandwiched between strangers.
- "The train must take him close to his destination—at least close enough to use convenient and fast local transportation.
- "It must be less costly in cash ex-

pended for each trip than any reasonable alternative.

- "It must be reliable and operate at all times of the day."

Monorail has so far met a poor reception in the studies for a variety of reasons, one being that it cannot be switched for heavy operation; another that it is hard to control its sway; a third that the riding public feels less secure when nothing separates him from the traffic below. But the current engineering studies plan "to conduct the most thorough investigations ever made of the so-called 'non-conventional' types of transit vehicles, such as monorail. Under this program, proponents of the use of such vehicles will be invited to present their plans and ideas to the district's engineering consultants."

Together with the plan to finance the trans-Bay tube from bridge revenues, other financial schemes are being considered to bring the total general obligation bond issues for first-phase construction to less than \$500 million.

Engineering studies indicate that about one family out of three would benefit by direct use of the proposed rail system and still another family out of the three would receive indirect benefits through the easing of congested traffic conditions. Thus, it is believed that it can be established with sufficient clarity that savings can be effected that would more than offset the tax subsidy of a portion of rapid transit capital costs.

As for running expenses, it is felt that such a tax-exempt publicly-owned transportation system—with reasonable fares—would be self-sufficient.

But some of the initial capitalization costs would have to come from increased taxes. The big question, therefore, is whether or not Bay Area voters will feel that the rail rapid transit system planned for them will be less costly than strangulation by the concrete octopus.

By proposals outlined in these pages, San Francisco becomes one of the first major metropolitan areas to consider a comprehensive plan for coordinated rail rapid transit, as an alternative to an expanded net of costly, land-consuming, tax-eating highways. (See "The Concrete Octopus," RA, May 18, pp. 20-22.)



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3

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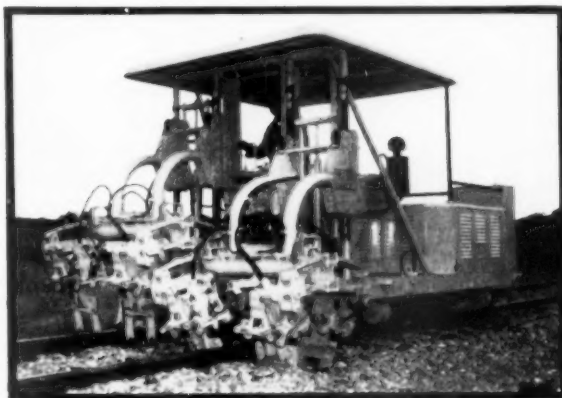
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1

THE 187-TON GIRDER was unloaded by two 60-ton cranes at a point chosen to give plenty of maneuvering room. One end at a time was shifted from car to trailer.



Biggest single girder fabricated by American Bridge will help carry 10 C&NW tracks over 3-way grade separation

Record Girder Goes in RR Bridge

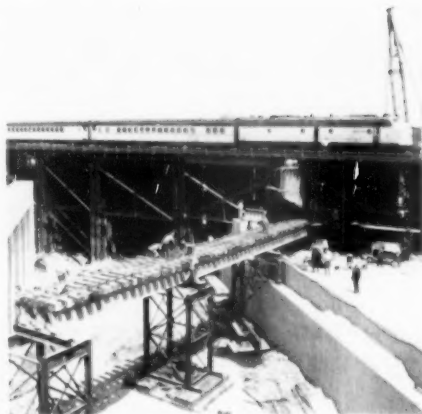
2

MOVEMENT to construction site, several blocks from unloading point, was accomplished by tractor-trailers at each end of girder. One pulled the load forward; the other backed up to guide it around corners. This underpass on the carefully planned route was cleared with just 2 in. to spare.



3

AT THE SITE, a 200-ft track was built through a temporary trestle which carried C&NW trains over the construction area. Girder was lifted off trailers, one end at a time; placed on two 100-ton push cars; pulled along track by winches and cables to a position parallel to its final location on the concrete piers.



4

ERECTION was accomplished by 125-ton crane which lifted each end of girder onto its bearing—a fixed pedestal at one end and a 14-ton rocker assembly at the other. Girder is part of a box girder which runs transversely at about the middle of the bridge. Floor system for ballasted deck is framed into the box girder.



The heaviest steel girder ever to be shipped in one piece by the American Bridge Division of the United States Steel Corporation will help to carry Chicago & North Western tracks over two Chicago streets and an express highway.

The girder was recently unloaded from railroad cars at Chicago and transported over city streets to the site of the new railroad bridge. There it was placed on two push cars operating on a short, specially built track and moved into position for erection. It was then lifted into place by the largest construction crane obtainable.

Fabricated in the division's plant at Ambridge, Pa., the girder is 126 ft long and 13 ft deep. Because of its size, it had to be loaded on three flat cars for the trip to Chicago. It could be moved only during daylight hours and at slow speed. Upon arrival at Chicago it was loaded onto two highway tractor-trailer units, one at each end, and moved over a carefully planned route to the construction area.

The girder is one of the main members of a bridge which is being erected as part of Chicago's new Northwest Expressway. Located on the city's near west side, this bridge is part of a three-level intersection which will carry Green Street, Hubbard Street and tracks of the Chicago & North Western over the expressway. The railroad structure will comprise the topmost level, with the bridge carrying the streets beneath it on the second level.

The railroad bridge will carry five main-line and five yard tracks. The main-line portion of the structure will be approximately 315 ft long. Near the middle of the bridge a cross girder will be located which will consist of two girders placed 3½ ft apart and tied together to form a box girder. The big girder recently erected is one of the units of the cross girder. Smaller girders will frame into the big box girder to form the floor system of the bridge. A ballasted deck will then be placed on top of the floor system to carry the tracks.



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Disneyland Unveils Monorail

The first monorail trains to operate on a daily basis in the United States are now in service on the Disneyland-Alweg monorail system at Anaheim, Cal.

Two three-car articulated trains, each with a capacity of 82 passengers, are expected to carry more than 1,000,000 Disneyland visitors this summer on a line about one mile long. More importantly, they may demonstrate the practicability of this type of equipment as a possible solution to mass transportation problems in American cities.

Electrically operated and running on rubber tires, the trains move over a concrete beamway, supported by cement pylons at heights up to 34 ft. The beamway and pylons are substantially the same size as those which would be used for any metropolitan single-track system. The basic design of the two trains, including motive power, braking and safety systems, is also said to be essentially the same, except that somewhat larger trains would be required for baggage, mail and standing passengers not handled at Disneyland. In metropolitan transit, speeds up to 80 mph are anticipated.

The Disneyland travelers ride in one of nine compartments in each monorail train, eight passengers to a compartment. In addition, five persons are accommodated in the front and five in the rear plastic-domed observation com-

partments. Entrance and exit is by a side door to each compartment. The trains are made of aluminum, plastic and stainless steel.

The concrete beamway, or "running beam," over which the trains travel is composed of pre-cast I-section concrete girders which serve as track, carrying beam and guide rail. All told, there are 104 of these connected concrete beams, 20 in. wide by 34½ in. deep, ranging in length from 24 to 40 ft. and supported by concrete columns resting on pilings 25 ft deep. The forms from which individual beams were cast are shell-like steel that can be adjusted to produce curving, twisting concrete girders.

Undercarriage of the trains straddles the beams in such a way that drive and braking wheels run on the top surface of the beamway, while guiding and stabilizing wheels contact both lateral surfaces of the beam. All tires are rubber.

Each train is driven by two 50-hp dc traction motors. Power is obtained from two steel and copper bus bars located on one side of the beamway and carrying 300 volts. This power is supplied from a 600-amp silicon diode rectifier to the bus bar system at five points along the main track. The train carries two electrical power pickup carriages which roll on spring-loaded nylon

wheels along the bus bars. The dc motors, supplying high torque at low rpm. in conjunction with the high friction value of rubber tires on a concrete surface, permit rapid acceleration.

Braking is accomplished by air brake equipment similar to that used on heavy highway vehicles.

At Disneyland, the monorail has been purposely designed and developed to include curvatures of 120-ft radius, overpasses, radial turns and grades of 7%, to demonstrate the practicability of this system under different construction and topographic conditions. There are four turns of approximately 180 deg. and the beamway reaches a top elevation of 34 ft. For purposes of comparison, a steel wheel train can normally achieve grades of 3%, compared to the 7% grades the monorail climbs at Disneyland, and the 11% grades which this system is said to be capable of climbing in metropolitan use.

The Disneyland-Alweg monorail system is a joint development of Disneyland, Inc., and the Alweg Corporation, which has been operating a test monorail at Cologne, Germany, since 1952. The total cost of the system as installed at Disneyland is \$1.3 million, including design and engineering work; site preparation, installation of pylons and beamway; and design and construction of the trains and their components.

Railroading



After Hours with

Jim Lyne

RIDING FREIGHT TRAINS—On the question of permission to ride freight trains, L. G. Hill of Washington calls attention to paragraphs in current Great Northern and Wabash public timetables—which explain the conditions under which passengers may ride certain freight trains. The Great Northern limits such permission to people of the masculine gender.

ALTERNATIVE TO "MASS"—Suggestions for a term to replace "mass transportation" (asked for by Ken Ross of GE) have come from F. D. Lonergan of Albany, N.Y., and O. J. Andersen, treasurer of the Soo Line. Mr. Lonergan likes "collective transportation," and Mr. Andersen's is "high volume" or "high density" transportation.

The word "mass" conveys both the idea of size and that of an aggregate. Maybe some railroader who recalls a little Latin or Greek could come up with an idea.

WORDS ARE IMPORTANT—The governor of New Jersey has a plan for insuring continued railroad suburban service (RA, June 22, p. 9). On the surface, this proposal looks like taking some money collected from motorists and using it to reduce community burdens on the railroads.

I see where the leader of a group of commuters says this isn't a plan for "railroad tax relief" but rather for "tax equity."

The gentleman is quite right. The railroads are not getting a present. They have been bearing a great deal more than their share of the cost of local government. The governor's plan, in substance, means only that this inequity would be rectified in part (and only in part), by calling on highway transportation to assume a part (and only a part) of this burden.

Getting an accurate label for such programs as this is usually a large part of the job of gaining public acceptance of them.

Timken Answers Bearing Queries

Questions concerning size and performance of freight car roller bearings [raised by E. Wynne (CNR) and M. A. Pinney (PRR) at the recent annual meeting of the AAR's Mechanical Division] merit a reply to clarify areas of doubt.

AAR Specification D-39-1957 requires that freight car roller bearings be designed to operate 500,000 miles with no more than 10% of the bearings being replaced solely because of fatigue. This, defined as B-10 life, means that at least 90% of the bearings will be continued in service beyond the 500,000-mile limit.

Such a specification is logical. An ordinary freight car, operating about 17,000 miles per year, would give a 30-year B-10 bearing life, after which some 90% of the bearings would still continue in use. If cars attained 75,000 miles per year, the B-10 bearing life would be seven years. After that, some 90% of the bearings would still be in service. Average life for all bearings would be several times 500,000 miles, or several times seven years. Such average life is far beyond that found economical in industrial practice.

This places a much different aspect on what is meant by bearing life than would be inferred from Mr. Pinney's remarks. He referred to a 500,000-mile bearing life. From his statement, it might be deduced that all bearings would be replaced after this mileage—not that 90% of them would still be suitable for further service. In view of the long average bearing life mentioned above (for either ordinary freight car or piggyback car yearly mileage) it hardly seems necessary to debate the economies of using a larger bearing to give still longer life with the penalty of a higher first cost or capital investment. This is especially so since the PRR (RA, June 22, p. 32) and others have made such statements as: "railroads are not in position to finance application of roller bearings to all cars. Sleeve bearings are close to roller bearings in cost."

Where a railroad might choose to use a longer-life roller bearing than required under the AAR specification, then the next journal-size larger AAR-approved freight car bearing could be applied, as proposed by Mr. Pinney.

It is true, as Mr. Wynne suggested, that life increases at a faster rate than cost. But questions still remain as to whether: (1) The railroad actually needs more life than is already provided for in the AAR specification; and (2) whether the higher capital in-

These are the questions

No technical subject in railroad-ing is livelier today than prevention of freight-car hot boxes. The accompanying article, prepared by Dr. O. J. Horger, chief engineer, Railway Division, Timken Roller Bearing Company, is a reply to questions as to roller-bearing service life. The questions were raised by E. Wynne, chief of motive power and car equipment, Canadian National, and M. A. Pinney, engineer tests, Pennsylvania, following presentation of the report of the Committee on Journal Roller Bearings at the annual meeting, in Chicago, June 25, of the Mechanical Division of the Association of American Railroads.

As reported in *Railway Age*, July 20, pages 42 and 43, Mr. Wynne said, in discussing the roller-bearing report, that information on roller-bearing life is needed to determine the best possible buy; that \$1 might buy 10 years of bearing life and \$1.25 might buy 30 years. For full information on which to base decisions, Mr. Wynne added, this field needs more engineering analysis.

Mr. Pinney commented on the same report, in remarks which he said represented his personal opinion—not necessarily that of the PRR.

He made the following points: (1) First freight roller bearings were heavy-duty design. (2)

Studies indicated lower-cost bearings were required. (3) To reduce costs, design changes included making the outer race the housing, required seals at both ends, reduced size and number of rollers, and limited grease capacity. (4) Current design is five-eighths original heavy-duty design. With life being cube of size, current design has one-quarter life of original design. (5) Original heavy-duty design was rated for 900,000 miles; current design, 500,000 miles. Based on cube relationship, one of these ratings is wrong. (6) Freight bearings must keep trucks square and absorb full lateral force. (7) On ordinary freight car, bearing life gives 30 years of service; on piggyback cars, about seven years. (8) Cars with one-wear wheels would get bearing inspection every seven to nine years; with multiple-wear wheels, possibly not often enough to detect failure symptoms. (9) Economics caused withdrawal of heavy-duty design; there is economic justification for use of larger size package bearing on high-mileage cars. [Mr. Pinney corrected Item 9 as published in our July 20 issue. He did not say "larger size AP bearing" as reported then. He used the term "larger size package bearing" as reported here. It was not his intention to use the designation of any one manufacturer.]

vestment is justified. The present AAR specification is in logical balance between bearing life, first cost, and cost of maintaining spare axle assemblies. Considerable merit exists in having one bearing for each journal size to fit any truck design, including the integral box side frame. Production costs may be minimized by manufacturing one bearing size instead of two or more. Further savings would be effected by reducing stores stocks of spare axle assemblies for maintenance. It is hardly necessary to conclude that the AAR is of the same opinion. Otherwise, its present specification would not exist, or changes would be under way.

Mr. Pinney cited various economic studies, from which he concluded that "lower cost roller bearings were nec-

essary to make it possible for railroads to proceed with freight car applications." AAR and plain bearing manufacturer studies support his contention. Just the opposite conclusion would be justified from studies reported by the Southern Pacific, the University of Illinois, and Timken, which show that a satisfactory return on investment can be obtained at present prices.

All these studies are based on use of so-called determinable operating costs, on which there was considerable disagreement, leading to the two diverse conclusions. No attempt was made to evaluate indeterminate expenses not readily subject to evaluation.

But the greatest economic value of roller bearings is that they spell progress. This was expressed by E. S.

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Leading builders of refrigerator cars take no chances.

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SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED

Marsh, president of the Santa Fe, when he addressed the AAR Mechanical Division (RA, June 29, p. 54) defining the present as "an era of railroad transportation that puts emphasis on fast, dependable freight service and intensified efforts to reduce costs of operation and maintenance." Once progress in the way of "fast dependable service" is assigned some economic value, then roller bearings are inevitable—as exemplified by the fact that all piggyback cars are roller-bearing equipped.

Cost of Roller Bearings

Some years ago the cost of roller bearings was 20% of the cost of a freight car. Now it is only 5 to 7%, or less. This has been achieved by controlling the price of bearings through mechanized production plants, and because rising costs for other materials and labor are continually making roller bearings less expensive as a percentage of total car cost.

Freight car roller bearings covered by our AAR Conditional Certificate of Approval No. 1 (covering AP bearings) were placed in service in August 1954. As of last March, our report to the AAR (required by our certificate) showed 17,452 Timken-equipped interchange freight cars in service, with total mileage of 656,897,000. Using the AAR monthly hot box report as a basis, there was one overheated bearing per 328,000,000 car-miles. Considering all car setoffs, including those at terminals, the record is one overheated bearing per 164,000,000 miles. These figures include the large iron ore carrying railroad, the Quebec North Shore & Labrador, which showed one hot box for 390,000,000 miles on 6½-in. by 12-in. roller-bearing journals. These figures compare with 219,000 miles per hot box on plain bearings, given in the last 12-month AAR hot box report for all railroads.

Maximum mileage on any large group of AP roller-bearing-equipped cars is in the range of 300,000 to 400,000 miles per car. Sampling inspection has been made of bearings from a number of cars, and there is every reason to believe that bearing performance will readily meet the AAR performance requirement for 500,000 miles. It will require from 1½ to two years of additional service experience before data will be available to confirm this contention.

Mr. Pinney expressed concern over means for inspecting bearings between wheel changes on high-mileage cars with multiple-wear wheels. The same problem has existed for many years on passenger cars, diesel locomotives, and steam locomotive drivers. Many railroads—especially those using wheel truing machines—do not inspect axle

journal roller bearings between wheel changes. No detrimental effects have followed such a practice. It would seem logical that the same procedure could be followed on high-mileage freight cars.

Mr. Pinney may argue that bearings used on those other classes of equipment are larger than those on freight cars, and thus have a greater factor of safety. It is true that the bearing is larger and the life longer, but these larger bearings, too, eventually reach the end of their life. It really becomes a question as to whether a large bearing approaching the end of its life can operate a wheel-life increment of, say, 400,000 miles on a multiple-wear wheel any better than a smaller bearing.

AAR road service tests on several different railroads have shown that the Timken AP application will operate four years without addition of grease. This four-year period coincides with the air brake valve cleaning period, when the car is on the repair track. Adequate facilities and personnel are available for adding grease at that time. We hope to see Rule 66-A revised to specify a 48-month period for re-lubrication of these bearings, so railroads may realize the potential savings in labor and materials.

Mr. Pinney spoke of the limited grease capacity of these bearings, as though this condition is undesirable. There is no lubrication value in having grease capacity in excess of the volume which will work through the bearing. He presumably favors an application using the conventional journal box cover, which in itself will add to the grease capacity. Such added capacity gives little increase in the amount of grease effective in lubricating the bearing. Much of this grease lies inactive in the cover. It, furthermore, gives the grease within the bearing a place to escape so as actually to leave less grease where it is needed. The use of two seals serves to form dams confining all the grease so it is active in lubricating the bearing.

With the Timken AP design it is necessary, of course, to use seals which are effective in retaining lubricant and in excluding water and foreign matter from the bearing. Service performance of this assembly has shown the adequacy of this design. Also, this design permits the bearing to be prelubricated with the proper amount of grease at one time at the factory or, in the case of wheel changeouts, in the wheel shop. In this way, the bearing may be mounted on the axle completely lubricated, without the often-forgotten need of adding supplementary grease. Use of a conventional iron cover on the bearing, similar to passenger car applications, leaves the possibility of

knocking or striking off the cover in freight service and yards, unless design provisions are made which again lead to excessive costs.

Mr. Pinney stated that the capacity of the current design of roller bearings is five-eighths that of the earlier freight car roller bearings; and that life proportional to the cube of the bearing capacity gives the current bearing one-quarter the life of the earlier design. These ratios are incorrect, in that the life of our current design of 5½-in. by 10-in. and 6-in. by 11-in. bearings is two to three times the life quoted by Mr. Pinney.

There is also one important life advantage of current over earlier designs, in that the outer bearing race may creep in service and present a different roller path surface. In the earlier designs the outer race did not creep. One roller path area was subjected to continuous fatigue action. The ratios given above do not take this feature of bearing life improvement into consideration.

'Golden Opportunity'

Santa Fe turned a bad break into a golden public relations opportunity recently, when a freight train derailment delayed the departure of "El Capitan" from Chicago.

About 475 passengers faced a delay of several hours—so Santa Fe tossed an impromptu party in Dearborn Station.

The road distributed a memo from President Ernest S. Marsh, explaining the situation. And then the festivities began. Passengers holding El Cap dining club meal coupon books were served their evening meal in the Fred Harvey station restaurant. A free Coke bar was set up and manned by dining car personnel. Paper engineer's caps and balloons were distributed to the children (and, Santa Fe says, to adults, too). The road even hired an accordion player to stroll through the station—with the youngsters following along.

Meanwhile, all passengers' luggage was being handled free of charge, through the cooperation of Santa Fe and the Chicago & Western Indiana (owner of the station).

A sample comment from the thoroughly entertained passengers:

"This is a fine example of how to turn adversity into a lot of fun."

Frisko Plans Guaranteed Rate

More guaranteed rates are in the making.

With the objective of regaining a substantial volume of business now moving by truck, the Frisko has proposed such a rate to cover naval stores and related commodities moving from Pensacola, Fla., to Chicago. The rate—the third of its type suggested by a U. S. railroad—is docketed for consideration by the Southern Freight Association Sept. 8.

Essentially, the Frisko proposal sets up the same kind of conditions found in a Soo Line tariff now under suspension by the Interstate Commerce Commission, and in a Lackawanna tariff recently approved by the New York State Public Service Commission. But, Frisko traffic officers reason, there are these significant differences:

Soo's proposal is an import-type of rate, because the affected traffic originates in Canada. And Lackawanna's is strictly intrastate. Frisko's tariff, therefore, is the first to come entirely within ICC jurisdiction.

A shipper of the specified articles

could use the Frisko's suggested rate by giving to participating carriers 90% of the volume, measured in tons, shipped during the one-year life of the tariff. Shipments moving under normal rates via carriers participating in the guaranteed rate would be included in the total.

Frisko's proposal specifies that no increase will be made in the rate during its life. It sets up routings via St. Louis and via the Thebes (Ill.) gateway and the Chicago & Eastern Illinois, and thence to Chicago via connecting carriers participating in routes beyond those points.

The proposed rates would apply to naval stores and related articles, zinc resins, turpentine, pinene and pine oil, terpineol, synthetic resins, and tall oil, all with 50,000-lb carload minimums. The rate of 77 cents per hundredweight on naval stores is 4 cents less than a rail rate now pending. Rates on the other articles are 15 cents per hundred less than truck rates.

To use the guaranteed rate, a shipper

must notify Frisko's auditor of revenues of his intention within 60 days after the rate becomes effective. He must furnish an indemnity bond. Bills of lading must reflect the fact that the guaranteed rate applies. Freight charges must be prepaid. Shippers must keep full records of all tonnage transported from origin to destination, and furnish to participating carriers at the expiration of the rate an affidavit giving tonnage moved by rail and by other forms of transportation. Participating carriers must have "reasonable access" to shippers' records.

In the event of failure to comply with all rules, shipments which moved under guaranteed rates would be rerated. The shipper would be obligated to pay the normal tariff rates in final settlement.

Frisko considers its proposed guaranteed rates fully compensatory and "necessary to place railroads in a competitive position to transport this traffic." An average mixed carload would produce revenue of \$572.50, or 64.6 cents per car-mile.

Letters from Readers

Tank-Trailer TOFC

Bangor, Me.

To the Editor:

I think the story on our highway-rail handling of tank trucks (RA, July 13, p. 42) has been very well handled indeed, and we are arranging to send copies to all of those involved in the petroleum business in this area.

W. Gordon Robertson
President
Bangor & Aroostook

Answer to Humphrey

Glendale, Ohio

To the Editor:

Senator Hubert Humphrey, in a recent speech before the Brotherhood of Locomotive Firemen & Enginemen, assured his audience that he intends to fight any effort to remove firemen from engine cabs.

As so often happens when a solon walks roughshod into a highly technical field, the senator made statements that were not factual. In particular, he attempted to justify the continued existence of firemen on the basis of "safety."

I felt strongly enough that safety was founded on automation, rather than on needlessly duplicated manpower, to

write the senator a letter aimed at filling the obvious breach in his knowledge of transportation facts.

I have enclosed, for your interest, a copy of my letter to Senator Humphrey.

Alvin L. Spivak

(Mr. Spivak advised Senator Humphrey to "make an earnest effort to become familiar with the transportation industry in which you apparently intend to take an interest," and added: "Familiarity with railroad practices around the world can only lead to the conclusion that a second engineman is capable of doing nothing that could not be better done by properly-designed mechanical and electrical equipment." He pointed out that in Europe and elsewhere, railroads have maintained "an enviable safety record" without a fireman in the locomotive cab. This practice is now, he noted, spreading to Canada.—Editor.)

Selling RR Services

Hinsdale, Ill.

To the Editor:

The principles of selling as developed in general industry, and which have been found applicable to the selling of any product or service, should have a prominent place in railroad

salesmanship. Each industry modifies and adapts the principles to its special requirements.

These principles apparently cover the problem areas that have been revealed in the Traffic Poll series, such as knowing the customer's requirements; and the capabilities of both the railroads and their competition.

One feature of railroad selling that appears unique, as compared with general industry, is the community of interest among railroads in the marketing of their services. To a railroad salesman, sometimes the services of other roads takes the form of competition. More often it is support, and a good selling point.

Hugh G. Dugan

Missile Trains

Stanton, Calif.

To the Editor:

Your feature article on our railroad missile system from launcher trains appearing in the July 6 issue of *Railway Age* is most interesting to us, and we would like you to know we appreciate your extremely good coverage.

H. John Cail
Vice President
Paul Hardeman, Inc.

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MARKET OUTLOOK *at a glance*

Carloadings Drop 2.2% Below Previous Week's

Loadings of revenue freight in the week ended Aug. 8 totaled 532,304 cars, the Association of American Railroads announced on Aug. 13. This was a decrease of 12,160 cars, or 2.2%, compared with the previous week; a decrease of 86,900 cars, or 14%, compared with the corresponding week last year; and a decrease of 208,167 cars, or 28.1%, compared with the equivalent 1957 week.

Loadings of revenue freight for the week ended August 1 totaled 544,464 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, August 1, 1959			
District	1959	1958	1957
Eastern	82,644	93,712	111,677
Allegheny	79,981	103,436	142,755
Poconos	46,740	52,670	68,742
Southern	109,627	107,184	115,901
Northwestern	67,097	99,971	129,059
Central Western	110,299	116,309	120,219
Southwestern	48,076	49,396	52,355
Total Western Districts	225,472	265,676	301,633
Total All Roads	544,464	622,678	740,708
Commodities:			
Grain and grain products	56,921	75,956	61,367
Livestock	3,741	3,905	4,942
Coal	98,735	107,964	135,396
Coke	3,464	5,248	10,670
Forest Products	42,189	37,346	41,774
Ore	11,708	55,042	90,863
Merchandise f.c.l.	39,604	44,177	54,010
Miscellaneous	288,102	293,040	341,686
August 1	544,464	622,678	740,708
July 25	536,430	608,065	736,407
July 18	585,070	582,244	743,359
July 11	554,426	491,566	692,599
July 4	573,325	460,345	535,334
Cumulative total, 31 weeks	18,947,227	17,069,014	21,288,803

PIGGYBACK CARLOADINGS.

—U. S. piggyback loadings for the week ended Aug. 1 totaled 7,714 cars, compared with 5,273 for the corresponding 1958 week. Loadings for 1959 up to Aug. 1 totaled 238,985 cars, compared with 149,040 for the corresponding period of 1958.

IN CANADA—Carloadings for the 10-day period ended July 31 were not available as this issue went to press.

New Equipment

FREIGHT-TRAIN CARS

► **Baltimore & Ohio.**—Ordered 500 50-ton box cars from company shops at DuBois, Pa., at a cost of approximately \$6,000,000. The cars will be equipped with double doors. Of the total, 400 will be equipped with load retaining devices. Work on the order will begin four to six weeks after the end of the steel strike.

► **Nickel Plate.**—Ordered 500 50½-ft. 50-ton all-steel box cars from General American at an estimated cost of \$6,000,000. Of the total order, 325 cars will have special loading devices. Subject to the availability of steel, delivery is scheduled to begin in the fourth quarter of 1959.

► **Trailer Train Co.**—Ordered 500 additional 85-ft. roller bearing piggyback flat cars at a cost of more than \$7,500,000. The new order will bring the Trailer Train fleet to 3,114 cars. Pullman-Standard will build 300 of the new cars at Butler, Pa.; ACF will build 200 at Berwick, Pa.

► **Repair Ratio 0.3% Higher Than Last Year.**—Class I roads on July 1 owned 1,701,705 freight cars, 45,603 less than a year ago, according to AAR report summarized below. Repair ratio was 0.3% higher than on July 1, 1958.

	July 1, 1959	July 1, 1958	Change
Car Ownership	1,701,705	1,747,308	-45,603
Waiting Repairs	134,194	133,414	+ 780
Repair Ratio	7.9%	7.6%	+ 0.3%

LOCOMOTIVES

► **Rock Island.**—Ordered 10 1,800-hp GP-18 road-switchers from Electro-Motive Division for delivery in November.

► **Locomotive Ownership and Condition.**—Steam locomotives owned or leased by Class I railroads on July 1 totaled 1,002, a drop of 735 from July 1, 1958, according to AAR quarterly summary. Diesel ownership rose by 450 units and electric units declined.

	Owned or Leased		Stored Serviceable		Waiting Shops	
	July 1, 1959	July 1, 1958	July 1, 1959	July 1, 1958	July 1, 1959	July 1, 1958
Diesel (Units)	28,065	27,615	231	766	1,318	1,191
Steam (Locomotives)	1,002	1,737	344	819	449	511
Electric (Units)	550	567	49	80	86	69

New Facilities

► **Louisville & Nashville.**—Ordered 98 two-way engine radios and 98 walkie-talkies from Motorola Communications & Electronics, Inc. The engine radio equipment uses a transistorized power supply which operates directly from the diesel's battery.



For CPR: Multi-Purpose Auto Box Car

Latest addition to Canadian Pacific's freight car fleet is shown here. It's a 50½-ft box car designed to haul new autos west, then pick up bulk freight (grain, lumber or plywood)

for the trip back east (RA, Aug. 10, p. 28). Canadian Car has built 500 of the multi-purpose cars for the road. They're equipped with both sliding and plug-type doors.

QNS&L Using Three-Man Crews

The Quebec North Shore & Labrador last week began operating ore trains with three-man crews—engineer and brakeman on the locomotive, conductor in the caboose. QNS&L, which never employed firemen, won the right to begin elimination of the flagman under terms of a new contract with the Brotherhood of Railroad Trainmen (RA, July 27, p. 9).

Basically, the consist of crews provision (Article 31) follows recommendations of a conciliation board which found the rear brakeman unnecessary to the road's operation.

J. A. Little, QNS&L general manager, said that approximately two-thirds of the line's ore trains started operating without the rear brakeman last Tuesday. Eighteen trainmen—all with seniority dates subsequent to last June 15—have been laid off.

The applicable paragraph of the crew consist article provides that "after all trainmen having seniority date of or prior to June 15, 1959, are recalled and ordered to report, all trains in ore service will have at least a conductor and one brakeman." Thus, jobs of trainmen employed on or before June 15 are protected. The overall pattern follows that set up on Canadian Pacific and Canadian National for gradual elimination of the fireman.

Other major provisions of the new three-year agreement with the BRT:

- The basic day rule was changed from 100 miles or eight hours to 128 miles or eight hours. Both straight time and overtime will be paid on a minute basis at a rate of 16 miles per hour.
- Trainmen will get a three-step wage increase—7% retroactive to Sept. 11, 1958; 3% retroactive to May 1, 1959; and 3% effective Sept. 11, 1960. All increases will be based on rates set up in the former contract, dated Sept. 11, 1956.

NSC Employee Safety Award Winners Named

Eight railroads and two Pullman Company operations were named last week as winners of the National Safety Council's 1958 Railroad Employees' National Safety Award. Union Pacific placed first among railroads which worked 50 million man-hours or more. Its casualty rate: 1.6 employees killed or injured per million man-hours worked.

Other group winners among Class I roads: Atlantic Coast Line, 4.00; Duluth, Missabe & Iron Range, 1.25; Bangor & Aroostook, 2.19; New York, Susquehanna & Western, .00; and Texas Mexican, .00.

The NSC cited Philadelphia, Bethlehem & New England; and Alton &

Southern in two categories for switching and terminal companies. Pullman Company regional operations in Mexico and the company's Calumet (Chicago) shop also won awards.

BLF&E Forms Committee To Develop Job Program

The Brotherhood of Locomotive Firemen & Enginemen has set up a special committee to spearhead the union's defense of the diesel fireman's job. One of the final acts of the BLF&E's 37th convention was the establishment of a "Committee of Nine" to develop a comprehensive program "to supplement the existing work now being done to assure continued employment of firemen on diesel-electric locomotives."

Other BLF&E actions provided for:

- Construction of a new headquarters building in Cleveland, at an estimated cost of \$900,000.

- Publication of a semi-monthly newspaper to supplement the BLF&E monthly magazine.

MP Raps Labor Leaders' Charges on Rules, Wages

Missouri Pacific has answered what it views as attempts by railroad labor leaders to "try to confuse the public by talking about everything except the featherbedding problem." In this month's MoPac "News Reel," the road comes to grips with two union charges:

- That management forces have remained stable while overall employment has declined—"Take a look at the management level situation in the unions, even though this has no more to do with the pressing problem of featherbedding work rules than the union's own charges. In spite of the fact that membership in railroad unions has been cut in half since the early 1920's, the number of vice presidents on the staff of the five operating brotherhoods has almost doubled. In 1923, there were 39 vice presidents; by 1959 the number had risen to 63."

- That productivity is up, employees are working harder than ever before and their wages should increase accordingly—"Revenue traffic units handled by employees during each hour worked rose since 1945 by 49%, due primarily to the more productive plant created by over \$14 billion of investors' money. Yet straight-time earnings per hour worked leaped by 169%, or over three times as much as worker productivity. Labor is entitled to share in the financial benefits flowing from improved technology, but wage gains must be kept in a realistic balance with productivity increases. Part of the saving must be passed on to the public . . ."

MAGOR

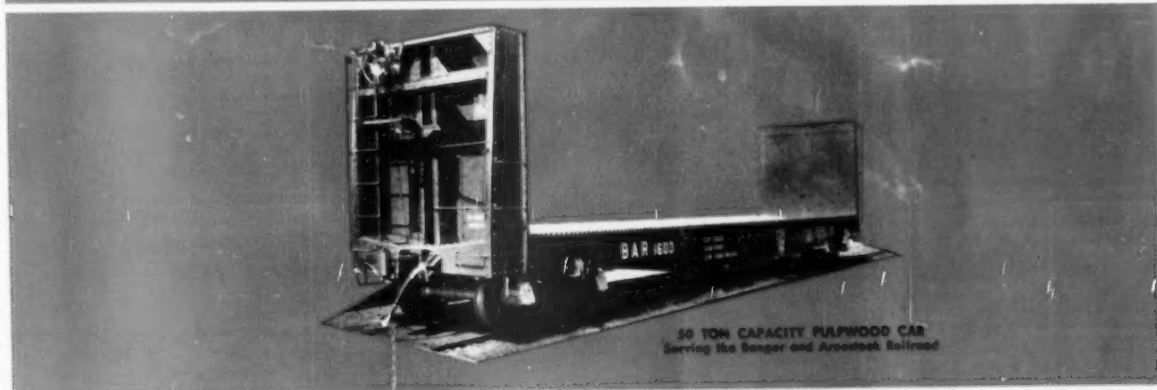
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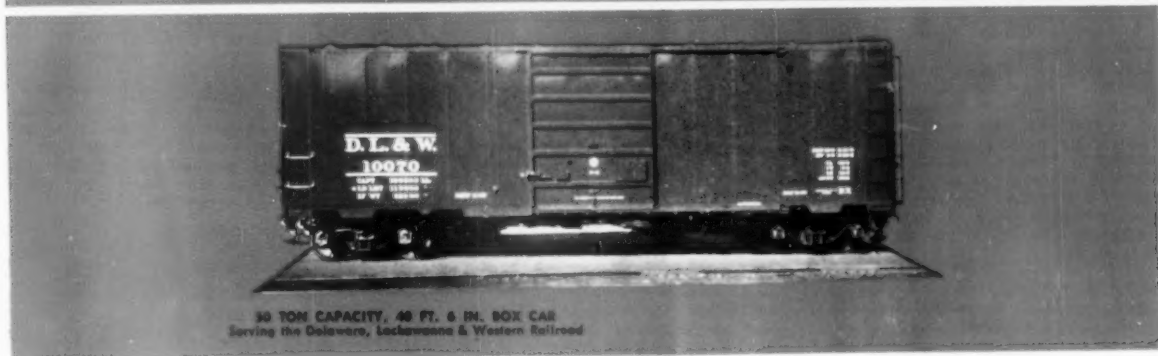
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Vernon E. Coe
NKP



Wallace W. Abbey
Soo Line

People in the News

ASSOCIATION OF AMERICAN RAILROADS.—

Curtis D. Buford, assistant general manager of the Western District of the New York Central, Cleveland, has been appointed vice president in charge of the operations and maintenance department, AAR, Washington, effective Aug. 10. He succeeds Richard G. May, who died June 2 (RA, June 8, p. 36). Mr. Buford's father, Charles H. Buford, held the same position with the AAR from 1939 to 1946 and later became president of the Milwaukee Road.

ASSOCIATION OF SOUTHEASTERN RAILROADS.

Has changed its address to 1710 H Street, N.W., Washington 6, D.C. New telephone number is REpublic 7-2686.

BALTIMORE & OHIO.—Otis C. Wilbur, assistant engineer of bridges and buildings, retired Aug. 15.

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA.—William R. Irwin, Calgary businessman, has been appointed to fill the board vacancy left by F. M. MacPherson, resigned.

BURLINGTON.—R. E. Begitske, diesel material supervisor, Chicago, advanced to superintendent reclamation and scrap, Eola, Ill., to succeed W. G. Muschler, who retired Aug. 1. Mr. Begitske's successor is J. A. Hahn, district storekeeper, North Kansas City, Mo., who in turn is replaced by J. L. Patterson, assistant district storekeeper, Havelock, Neb. M. R. Fitch, chief clerk, North Kansas City, named to succeed Mr. Patterson. H. W. Hagen, chief clerk, West Burlington, Iowa, appointed district storekeeper, Alliance, Neb., succeeding V. W. Mitchell, retired.

L. R. Hall has been appointed engineer of track, Chicago, succeeding F. H. McKenney, deceased. J. W. Davidson named engineer of bridges, Chicago, to succeed the late M. L. Johnson. D. V. Sartore appointed assistant engineer of bridges, and C. A. McColgin named assistant to engineer of bridges, both at Chicago.

CANADIAN NATIONAL.—K. C. Fincham, chief accountant-general in the revenue accounting department, Montreal, named acting assistant comptroller-revenues, succeeding W. R. Corner. H. F. Lorrman, methods manager in the revenue accounting department, Montreal, succeeds Mr. Fincham.

William P. Moffat, coordinator of data processing, accounting and finance department, appointed assistant chief of transportation.

Robert Reid, division freight agent at Winnipeg, has been named division freight agent at Montreal. He is succeeded at Winnipeg by

Edward Perkins, formerly assistant to the freight traffic manager at Toronto. H. A. Pickering, superintendent of the Halifax division, has become superintendent of the newly-established Scotia division; Hedley C. Gunn, superintendent of the Moncton division, has been named superintendent of the newly-created Northumberland division; Lloyd G. Stirling, superintendent of the New Glasgow division, has been named terminal superintendent at St. John reporting to the superintendent of the Northumberland division; J. G. Davis, terminal superintendent at St. John, has been appointed terminal superintendent assigned to special duties in the office of the general superintendent of the Maritime District. A. F. Berry has been named acting general superintendent for the Saskatchewan district while continuing to serve as superintendent of transportation for the same territory.

CHICAGO & EASTERN ILLINOIS.—R. E. Gotshall, assistant freight sales manager, Cleveland, appointed freight sales manager, Cincinnati, succeeding T. D. Boyce, resigned. Russell G. Peterson named traffic representative, Milwaukee, Wis.

Frank A. Schuler, Jr., appointed director of public relations, Chicago. Mr. Schuler was formerly director of resources utilization, Office of Civil and Defense Mobilization, Battle Creek, Mich.

H. R. Nelson, assistant to the president, elected vice president—comptroller, to succeed H. C. Von Berg, who retired July 31.

ELGIN, JOLIET & EASTERN.—Robert P. Little appointed administrator—employee suggestion system, Chicago, succeeding W. C. Meyer, assigned other duties.

Russell L. Oberlin named assistant chief industrial engineer, Chicago.

INTERSTATE COMMERCE COMMISSION.—Edwin R. Butler has become assistant director of locomotive inspection, succeeding Howard H. Shannon. Mr. Shannon retired several months ago, and Mr. Butler's appointment by President Eisenhower was confirmed recently by the Senate. He has been a member of the staff of locomotive inspectors since 1947, serving in the Chicago office of the Commission's Bureau of Safety and Service.

LEHIGH & NEW ENGLAND.—Board of directors has elected S. T. W. Green treasurer and W. L. Mitchell secretary. Messrs. Green and Mitchell will also continue in their present offices as president and comptroller, respectively.

NICKEL PLATE.—Robert A. Gleason named gen-

eral superintendent and Vernon E. Coe assistant general superintendent, both at Bellevue, Ohio, effective Aug. 1.

E. D. Piper, assistant general passenger agent, retired Aug. 1.

Edward D. Walsh, assistant superintendent of the Lake Erie & Western district, named terminal superintendent, Chicago; George G. Crews, trainmaster of Cleveland division, succeeds Mr. Walsh; Francis J. McGuirk, trainmaster of the Peoria division, succeeds Mr. Crews; Ralph E. Kieser, general yardmaster at Lima, Ohio, succeeds Mr. McGuirk.

SOO LINE.—Wallace W. Abbey, Western Editor of Railway Age, Chicago, has resigned effective Aug. 31 to become assistant to vice president—public relations, of the Soo Line, Minneapolis.

OBITUARY

Earl Williams Cashman, 68, former director and vice president in charge of operations for Graybar Electric Co., Inc., died Aug. 3.

Theodore A. Weybrecht, 63, freight traffic manager, Nickel Plate, Cleveland, died Aug. 3 in a Cleveland hospital.

Supply Trade

Paul J. McHale, railway sales engineer of Simplex Wire & Cable Co., has been appointed manager of railroad sales.

D. K. Heiple has been named manager of the newly formed Sales Development Department at LeTourneau-Westinghouse Co.

Gus Welty has been named Western Editor, Railway Age, at Chicago. Mr. Welty has been regional news editor at Chicago since June 1, 1956. Prior to joining Railway Age, he was with the Greensburg (Pa.) Tribune-Review, and a free lance writer and photographer on railroad subjects.



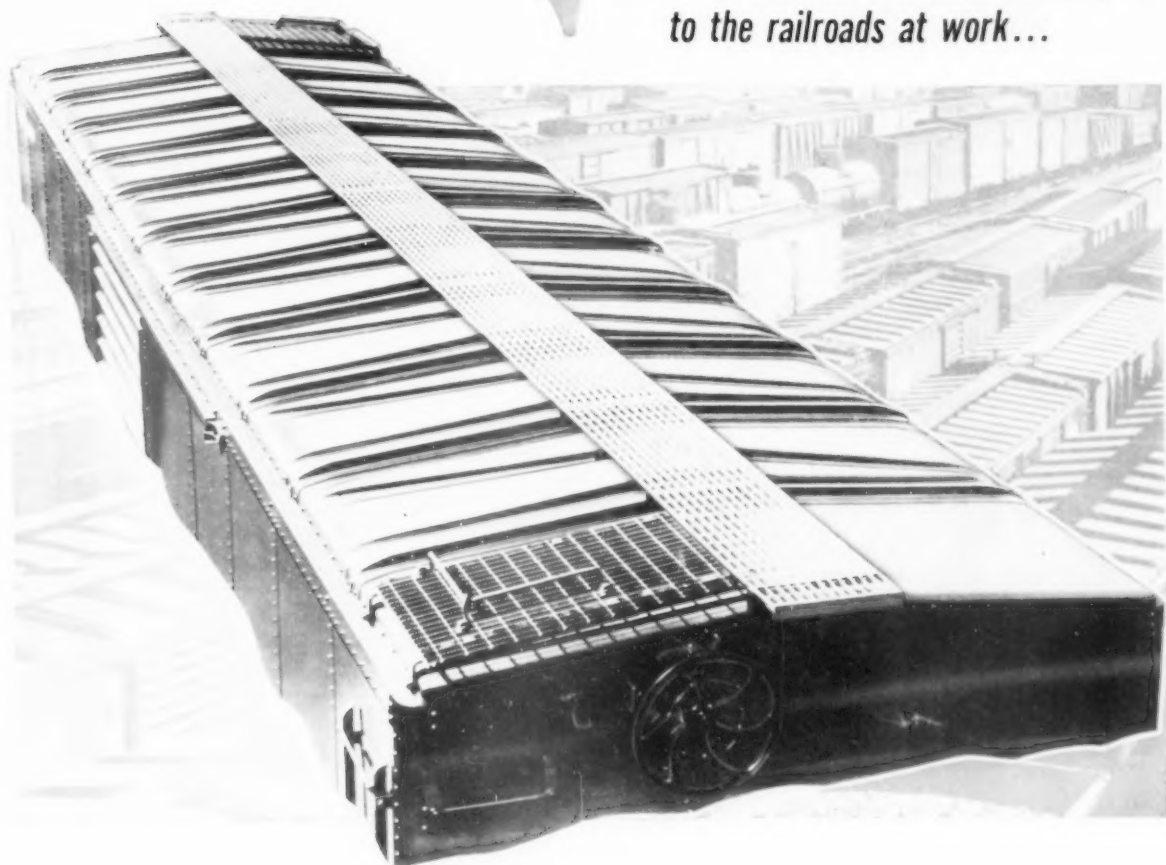
Paul J. McHale



Gus Welty



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You Ought To Know...

Over 1,000 yard assignments and about 150 road freight assignments have been operated without firemen on the Canadian National since agreement was reached between the BLF&E and the CNR in May. During this time, every available fireman has been employed, in strict accord with the terms of the agreement, which provides for gradual elimination of firemen from yard and road freight diesels.

Katy's general offices will be moved out of downtown St. Louis sometime this autumn. New offices and freight house facilities are now under construction at Baden Yard, about six miles north of the central area. Katy expects to have the freight house in use some time next month.

Railroads and truckers were paid an estimated \$4 billion in 1958 for hauling farm food products destined for civilian consumers, according to the Department of Agriculture. The 1957 farm food transportation bill was \$3.6 billion.

"Full-crew" laws of New York are under investigation by the Public Service Commission. Management and unions have until Sept. 15 to submit written statements. The PSC wants to know in detail how both sides feel about the laws, all of which are at least 20 years old. A public hearing is scheduled Oct. 5 in New York City.

Railroad pick-up and delivery on LCL and TOFC have again been hit by a Teamster strike on the West Coast. Certain PU&D services have been embargoed on SP, WP, NWP and P&SR (LCL and TOFC) and Santa Fe (LCL). A similar situation developed during a drivers' walkout about a year ago (RA, Aug. 18, 1958, p. 10).

New Haven is spending \$200,000 to provide clearance for taller TOFC combinations between New Haven and Boston, and between New Haven and Maybrook, N.Y. Project involves lowering of tracks through tunnels, raising of electric trolley wires, shifting of signals and structures, raising of overpass bridges, and, in some cases, rock blasting. The clearance adjustments will permit use of 12-ft. 6-in. vans on standard 3-ft. 8-in. flat cars.

Southern Pacific is planning to extend microwave from Dunsmuir, Calif., to Los Angeles with San Francisco as the hub. At the north this will connect with the present 25-mile Dunsmuir-Black Butte microwave system. The new plan calls for 180 telephone channels plus printing telegraph circuits. The system will accommodate facsimile, data processing and other forms of high speed communications.

Two new industrial parks will be developed by railroads in Chicago's western suburbs. Burlington's board has authorized purchase of about 450 acres along the "O" main line near Naperville, Ill. Chicago & North Western will develop 275 acres at Northlake, Ill., adjacent to C&NW's Proviso Yard.

Robert G. LeTourneau, president of R. G. LeTourneau, Inc., is the winner of the National Defense Transportation Association's 10th annual award for contributing "most to the effectiveness of the transportation industry in support of national security." Mr. LeTourneau will receive the award at the NDTA's annual dinner in Seattle, Wash., Oct. 14.

"Can You Afford Featherbedding?" Illinois Central is putting the question to readers of on-line newspapers in ads appearing this month. "The Illinois Central is trying to cut costs, improve service and increase its volume of business," says the ad. "If we are to succeed, outmoded work rules must go; they are costly to you, costly to us, costly even to those they are intended to benefit." The ad is signed by IC President Wayne A. Johnston.

The Long Island entered the sixth year of its 12-year \$65-million rehabilitation program last week, and observed the occasion by putting its 666th new or rebuilt car into service. In the first five years of the program, LIRR added 222 new cars and 444 modernized cars to its passenger fleet.

Possible roadblock to Plan I piggybacking in Canada is a report of a federal conciliation board. The finding, which has drawn unfavorable press comment, says, in effect, that "when a load is ready for dispatch and a highway driver is available," he must be given preference over piggybacking except under specific and "unusual" conditions.

Frisco has pleaded innocent to charges of criminal violations of the Interstate Commerce Act alleged in connection with the road's efforts to obtain control of the Central of Georgia. A two-count indictment was filed against the road in U.S. district court in St. Louis last month. The charges allege that Frisco got control of the CG before March 1, 1956, without prior ICC approval. Meanwhile, it was reported that regulatory commissions of six states—Missouri, Arkansas, Kansas, Oklahoma, Alabama, and Georgia—have intervened on Frisco's side in its suit seeking reversal of the ICC order barring control of the CG.

The White House has announced the reappointment of ICC Commissioners Howard G. Freas and Abe McGregor Goff for seven-year terms to expire Dec. 31, 1966.

Overwhelming approval of Gov. Robert E. Meyner's railroad-aid plan came last week from the New Jersey Assembly. The lower house approved, by a vote of 53-2, a bill calling for a statewide referendum of the plan in November. Senate approval is expected to come at a special session Aug. 31. The plan calls for use of New Jersey Turnpike profits to help commuter roads. It's been variously estimated that \$630 million to \$680 million would be available over the next 28 years (RA, June 22, p. 9; Aug. 3, p. 7).

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Advertisers' Index

Allison Division of G. M. Corp.	12, 13
American Brake Shoe Company	26
American Hosiery & Felt Company	23
Association of Track & Structure Suppliers	11
Bethlehem Steel Company	8
Classified Ads	12
Erman-Howell Division, Luria Steel & Trading Corp.	33
Parrell Manufacturing Company	8
Foster Company, L. B.	5
Jackson Vibrators, Inc.	16, 17
Linde Company	Back Cover
Major Car Corp.	29
Rail & Industrial Equipment Co., Inc.	33
Railway Educational Bureau	33
Scintilla Division, Bendix Aviation Corp.	26
Standard Railway Equipment	31
Stanhope, Inc., R. C.	33
Striegel Supply & Equipment Corp.	33
Symington-Gould Company	Inside Front Cover
Teletype Corp.	6
Whiting Corp.	4
Wine Railway Appliance Company	Inside Back Cover
Wyandotte Chemicals Corp.	19

ICC, an Indian Giver

It's too bad the editor of this paper, and other railroad scribes, lack the talent for political parody of such comic opera fabricators as Gilbert and Sullivan. British political life of 75 years or so ago got an appropriate lampooning from these musical dramatists—who didn't have half the raw material for satirical comedy at their disposal that transportation politics in the U.S.A. affords.

Take, for example, the recent ICC decision in the power brake case. Laying down rules and regulations for air brake inspection was entrusted to the commission by legislation which was lobbied through Congress by the railway unions. In obeying this law, the ICC made a rule that railroads must maintain "intermediate inspection points" for testing air brakes, at distances not to exceed 500 miles. The AAR asked that this rule be modified by a provision that the commission might give relief from this rule, "upon an adequate showing by an individual carrier."

While the AAR was requesting this saving clause in the rule, along came the Santa Fe, the Great Northern, the Northern Pacific, the Southern Pacific and the Union Pacific—each of them asking moderate relief from the strict 500-mile limitation. The Santa Fe and Great Northern each wanted one inspection district of 524 miles, the Northern Pacific sought one of 548 miles. The Southern Pacific asked authority for one district of 502 miles and another of 537. The Union Pacific proposed several inspection districts of slightly more than 500 miles.

And how did the commission decide this case? You probably could have guessed the answer. They gave the AAR an empty victory by ruling that the ICC can and will modify the 500-mile limitation in individual cases, when carriers show sufficient cause. But, then, they proceeded to turn down every single application of individual railroads for specific relief. They even voted "no" on the SP application where the distance was 502 miles—only two miles (four-tenths of 1%) over the limit.

This inspection point rule applies to only a small proportion of total traffic, since most trains are remade and their brakes tested at more frequent intervals than 500 miles anyhow. The 500-

mile rule, for the most part, catches only a few long-haul freight trains. But the rule delays these important trains—for no conceivable reason except the satisfaction of an ICC whim to the effect that a 500-mile inspection achieves safety, whereas a 502-mile limit would jeopardize life and limb.

For example, because of the ICC decision in this case, the Santa Fe will have to provide for an additional inspection of seven hot-shot freight trains in either direction at Waynoka each day—at an average delay of 36 minutes to these trains. Moreover, 14 additional car inspectors will have to be employed at Waynoka—men whose time will "not be fully utilized."

This paper has frequently defended the Interstate Commerce Commission, and will doubtless do so again. We are not members of the substantial but growing minority that has come around to the belief that transportation regulation has completely outlived its usefulness.

The fault we sometimes find with the ICC always has the same origin—decisions which fall short of the opportunity for constructive action. The commission under the law has wide powers of discretion. In the brake inspection case, it could have permitted greater latitude in inspection limits with no discernible sacrifice in safety, but considerable saving in expense and in delay to trains. In this decision, as in those which deny railroad freedom in the operation of trucks on the highways, the ICC is acting—not under limitations imposed by Congress, but under limitations which are self-imposed.

CHALLENGE TO ICC: The justification for the existence of such an institution as the ICC lies in the fact that the law allows it a large measure of discretion. Having intimate factual knowledge of transportation conditions, it can "legislate" constructively much more quickly and realistically than Congress itself could hope to do. But, when the commission fails to evidence appreciation of its opportunities for constructive national service, it plays right into the hands of the critics of all regulation. Give-and-take-back decisions like this brake inspection case may be laughable, superficially—but they're more cause for sighs than for mirth.

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